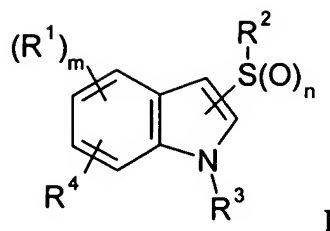


WHAT IS CLAIMED IS:

1. A compound of the formula I:



or a pharmaceutically acceptable salt or prodrug thereof,
wherein:

m is from 0 to 3;

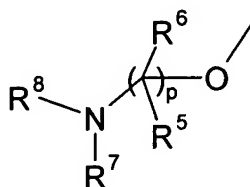
n is from 0 to 2;

- 10 each R^1 is independently hydrogen, halo, alkyl, haloalkyl, hydroxy, heteroalkyl, nitro, alkoxy, cyano, $-NR^aR^b$, $-S(O)_n-R^a$, $-C(=O)-NR^aR^b$, $-SO_2-NR^aR^b$, $-N(R^a)-C(=O)-R^b$, or $-C(=O)-R^a$, where each of R^a and R^b is independently hydrogen or alkyl, or two of R^1 may form an alkylene or alkylene dioxy group;

R^2 is aryl or heteroaryl;

- 15 R^3 is hydrogen or alkyl; and

R^4 is of the formula:



wherein:

p is 2 or 3; and

- 20 R^5 , R^6 , R^7 and R^8 each independently is hydrogen or alkyl, or one of R^5 and R^6 together with one of R^7 and R^8 and the atoms therebetween may form a heterocyclic ring of 4 to 7 members, or R^7 and R^8 together with their shared nitrogen may form a heterocyclic ring

of 4 to 7 members; or one of R⁷ and R⁸ together with R³ and the atoms therebetween may form a heterocyclic ring of 4 to 7 members.

2. The compound of claim 1, wherein the radical -S(O)_n-R² is at the 2- position of the indole ring system.
3. The compound of claim 1, wherein the radical -S(O)_n-R² is at the 3- position of the indole ring system.
4. The compound of claim 1, wherein R⁴ is at the 7- position of the indole ring system.
5. The compound of claim 4, wherein R² is optionally substituted phenyl.
6. The compound of claim 4, wherein m is 0.
7. The compound of claim 4, wherein n is 2.
8. The compound of claim 4, wherein n is 0.
9. The compound of claim 4, wherein R² is 2-halophenyl, 3-halopheny, 4-halophenyl, 2,3-dihalophenyl, 2,4-dihalophenyl, 3,4-dihalophenyl, 2,5-dihalophenyl, 3,5-dihalophenyl, 2-alkoxyphenyl, 3-alkoxypheny, 4-alkoxyphenyl, 2,3-dialkoxyphenyl, 2,4-dialkoxyphenyl, 3,4-dialkoxyphenyl, 3,5-dialkoxyphenyl, or 2,5-dialkoxyphenyl.
10. The compound of claim 4, wherein R² is 4-chlorophenyl, 2,3-dichlorophenyl, 2-chlorophenyl, 2-fluorophenyl, 3-fluorophenyl, or 2-methoxyphenyl.
11. The compound of claim 4, wherein R⁴ is optionally substituted 2-pyrrolidin-1-yl-ethoxy, optionally substituted pyrrolidin-2-methoxy, optionally substituted piperidin-4-yloxy, optionally substituted azetidin-3-yl-methoxy, aminoethoxy, methylaminoethoxy or dimethylaminoethoxy.

12. The compound of claim 4, wherein p is 2 and R⁵ and R⁶ are hydrogen.
13. The compound of claim 12, wherein R⁷ and R⁸ together form a five- or six-membered
5 ring.
14. The compound of claim 12, wherein one of R⁷ and R⁸ is hydrogen and the other is alkyl.
15. The compound of claim 12, wherein R⁷ and R⁸ are alkyl.
10
16. The compound of claim 4, wherein p is 1, R⁵ and R⁷ are hydrogen, and R⁶ and R⁸
together form a five- or six-membered heterocyclic ring.
17. The compound of claim 1, wherein R⁴ is at the 4- position of the indole ring system.
15
18. The compound of claim 17, wherein R² is optionally substituted phenyl.
19. The compound of claim 17, wherein m is 0.
20. The compound of claim 17, wherein n is 2.
20
21. The compound of claim 17, wherein n is 0.
22. The compound of claim 17, wherein R² is 2-halophenyl, 3-halopheny, 4-halophenyl, 2,3-
25 dihalophenyl, 2,4-dihalophenyl, 3,4-dihalophenyl, 2,5-dihalophenyl, 3,5-dihalophenyl, 2-
alkoxyphenyl, 3-alkoxypheny, 4-alkoxyphenyl, 2,3-dialkoxyphenyl, 2,4-dialkoxyphenyl, 3,4-
dialkoxyphenyl, 3,5-dialkoxyphenyl, or 2,5-dialkoxyphenyl.
23. The compound of claim 17, wherein R² is 4-chlorophenyl, 2,3-dichlorophenyl, 2-
30 chlorophenyl, 2-fluorophenyl, 3-fluorophenyl, or 2-methoxyphenyl.

24. The compound of claim 17, wherein R⁴ is optionally substituted 2-pyrrolidin-1-yl-ethoxy, optionally substituted pyrrolidin-2-methoxy, optionally substituted piperidin-4-yloxy, methylaminoethoxy or dimethylaminoethoxy.

5

25. The compound of claim 3, wherein R⁴ is at the 7-position of the indole ring system.

26. The compound of claim 25, wherein R² is optionally substituted phenyl.

10 27. The compound of claim 25, wherein m is 0.

28. The compound of claim 25, wherein n is 2.

29. The compound of claim 25, wherein n is 0.

15

30. The compound of claim 25, wherein R² is 2-halophenyl, 3-halophenyl, 4-halophenyl, 2,3-dihalophenyl, 2,4-dihalophenyl, 3,4-dihalophenyl, 2,5-dihalophenyl, 3,5-dihalophenyl, 2-alkoxyphenyl, 3-alkoxyphenyl, 4-alkoxyphenyl, 2,3-dialkoxyphenyl, 2,4-dialkoxyphenyl, 3,4-dialkoxyphenyl, 3,5-dialkoxyphenyl, or 2,5-dialkoxyphenyl.

20

31. The compound of claim 25, wherein R² is 4-chlorophenyl, 2,3-dichlorophenyl, 2-chlorophenyl, 2-fluorophenyl, 3-fluorophenyl, or 2-methoxyphenyl.

25 32. The compound of claim 25, wherein R⁴ is optionally substituted 2-pyrrolidin-1-yl-ethoxy, optionally substituted pyrrolidin-2-yl-methoxy, optionally substituted piperidin-4-yloxy, optionally substituted azetidin-3-yl-methoxy, aminoethoxy, methylaminoethoxy or dimethylaminoethoxy.

33. The compound of claim 25, wherein p is 2 and R⁵ and R⁶ are hydrogen.

30

34. The compound of claim 33, wherein R⁷ and R⁸ together form a five- or six-membered heterocyclic ring.

35. The compound of claim 33, wherein one of R⁷ and R⁸ is hydrogen and the other is alkyl.

36. The compound of claim 33, wherein R⁷ and R⁸ are alkyl.

37. The compound of claim 25, wherein p is 1, R⁵ and R⁷ are hydrogen, and R⁶ and R⁸ together form a five- or six-membered heterocyclic ring.

38. The compound of claim 3, wherein R⁴ is at the 4- position of the indole ring system.

39. The compound of claim 38, wherein R² is optionally substituted phenyl.

40. The compound of claim 38, wherein m is 0.

41. The compound of claim 38, wherein n is 2.

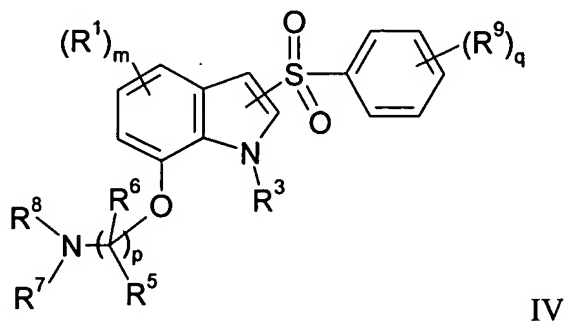
42. The compound of claim 38, wherein n is 0.

43. The compound of claim 38, wherein R² is 2-halophenyl, 3-halopheny, 4-halophenyl, 2,3-dihalophenyl, 2,4-dihalophenyl, 3,4-dihalophenyl, 2,5-dihalophenyl, 3,5-dihalophenyl, 2-alkoxyphenyl, 3-alkoxypheny, 4-alkoxyphenyl, 2,3-dialkoxyphenyl, 2,4-dialkoxyphenyl, 3,4-dialkoxyphenyl, 3,5-dialkoxyphenyl, or 2,5-dialkoxyphenyl.

44. The compound of claim 38, wherein R² is 4-chlorophenyl, 2,3-dichlorophenyl, 2-chlorophenyl, 2-fluorophenyl, 3-fluorophenyl, or 2-methoxyphenyl.

45. The compound of claim 38, wherein R⁴ is optionally substituted 2-pyrrolidin-1-yl-ethoxy, optionally substituted pyrrolidin-2-methoxy, optionally substituted piperidin-4-yloxy, optionally substituted azetidin-3-yl-methoxy, aminoethoxy, methylaminoethoxy or dimethylaminoethoxy.

5 46. The compound of claim 1, wherein said compound is of the formula IV:



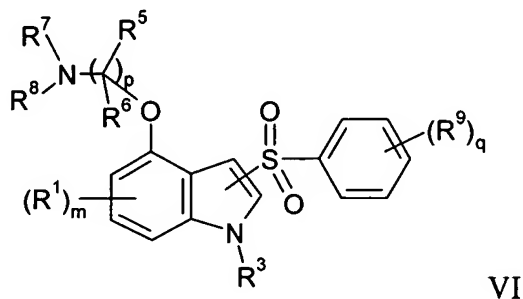
wherein:

m, p, R¹, R³, R⁵, R⁶, R⁷ and R⁸ are as defined in claim 1;

q is from 0 to 4; and

10 each R⁹ is independently hydrogen, halo, alkyl, haloalkyl or alkoxy.

47. The compound of claim 1, wherein said compound is of the formula VI:



wherein:

15 m, p, R¹, R³, R⁵, R⁶, R⁷ and R⁸ are as defined in claim 1;

q is from 0 to 4; and

each R⁹ is independently hydrogen, halo, alkyl, haloalkyl or alkoxy.

48. The compound of claim 1, wherein said compound is selected from:

20 3-Phenylsulfanyl-7-(2-pyrrolidin-1-yl-ethoxy)-1H-indole;

- 3-Benzenesulfonyl-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 3-(3-Chloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)- 1*H*-indole;
 3-(4-Chloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 3-(2,3-Dichloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 5 3-(2-Chloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 3-(3,4-Dichloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 3-(2-Fluoro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 3-(3-Fluoro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 3-(3-Methoxy-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 10 3-(2-Methoxy-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 2-(3-Benzenesulfonyl-1*H*-indol-7-yloxy)-ethyl]-dimethyl-amine;
 {2-[3-(2-Methoxy-benzenesulfonyl)-1*H*-indol-7-yloxy]-ethyl}-dimethyl-amine;
 {2-[3-(2-Fluoro-benzenesulfonyl)-1*H*-indol-7-yloxy]-ethyl}-dimethyl-amine;
 2-[3-(2-Fluoro-benzenesulfonyl)-1*H*-indol-7-yloxy]-ethyl}-methyl-amine;
 15 [2-(3-Benzenesulfonyl-1*H*-indol-7-yloxy)-ethyl]-methyl-amine;
 2-(3-Benzenesulfonyl-1-methyl-1*H*-indol-7-yloxy)-ethyl]-methyl- amine;
 (S)-3-(2-Fluoro-benzenesulfonyl)-7-(pyrrolidin-2-ylmethoxy)-1*H*-indole;
 3-Benzenesulfonyl-7-(piperidin-4-yloxy)-1*H*-indole;
 [2-(2-Benzenesulfonyl-1*H*-indol-4-yloxy)-ethyl]-methyl-amine;
 20 2-(2-Benzenesulfonyl-1*H*-indol-7-yloxy)-ethyl]-methyl-amine;
 3-(2,5-Dichloro-benzenesulfonyl)-7-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 2-Benzenesulfonyl-4-(2-pyrrolidin-1-yl-ethoxy)-1*H*-indole;
 4-(Azetidin-3-ylmethoxy)-2-benzenesulfonyl-1*H*-indole; and
 2-[3-(2-Fluoro-benzenesulfonyl)-1*H*-indol-7-yloxy]-ethylamine.

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49. A pharmaceutical composition comprising an effective amount of the compound of claim 1 in admixture with a pharmaceutically acceptable carrier.

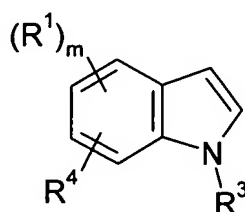
50. A method for treating a central nervous system disease state in a human subject, said method comprising administering to said subject a therapeutically effective amount of a compound of claim 1.

5 51. The method of Claim 50, wherein the disease state is selected from psychoses, schizophrenia, manic depressions, neurological disorders, memory disorders, attention deficit disorder, Parkinson's disease, amyotrophic lateral sclerosis, Alzheimer's disease and Huntington's disease.

10 52. A method for treating a disorder of the gastrointestinal tract in a subject, said method comprising administering to said subject a therapeutically effective amount of a compound of claim 1.

53. A method for producing a substituted indole, comprising:

15 (a) contacting an indole compound of the formula:



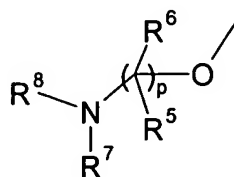
wherein:

m is from 0 to 3;

20 each R^1 is independently hydrogen, halo, alkyl, haloalkyl, hydroxy, heteroalkyl, nitro, alkoxy, cyano, $-NR^aR^b$, $-S(O)_s-R^a$, $-C(=O)-NR^aR^b$, $-SO_2-NR^aR^b$, $-N(R^a)-C(=O)-R^b$, or $-C(=O)-R^a$, where each of R^a and R^b is independently hydrogen or alkyl;

R^3 is hydrogen or alkyl; and:

R^4 is of the formula:



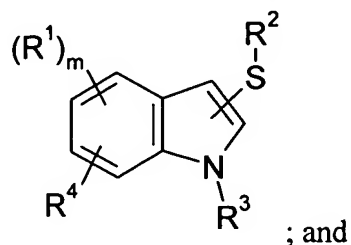
wherein:

p is from 0 to 3; and

R⁵, R⁶, R⁷ and R⁸ each independently is hydrogen or alkyl, or one of R⁵ and R⁶ together with one of R⁷ and R⁸ form a heterocyclic ring of 4 to 7 members, or R⁷ and R⁸ together form a

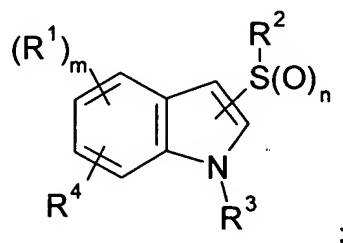
5 heterocyclic ring of 4 to 7 members;

with a disulfide of the formula R²-S-S-R² wherein R² is aryl or heteroaryl, to produce a sulfanylated indole compound of the formula:



(b) optionally oxidizing the sulfanylated indole h to produce a substituted

10 indole of the formula:



wherein n is 1 or 2.